

# Does perception towards internet banking differs over different category of customers?

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**Abstract -** In lieu of customer's higher expectations of speedy, multiple and secured banking transactions bankers opted the internet system to cater their demands. Literature suggests that "usefulness", "advantages" and "security" are the most related factors for the acceptance of internet system. This study explores whether the above factors are correlated perception towards them differs over different category of age and occupation groups of customers in accepting internet system in private banks located in and around Chennai city. Also verifies whether there exists difference in perception between male and female. 550 customers of different age and occupation chosen for survey and questionnaire were distributed. 416 usable questionnaire were analyzed using statistical tools like ANOVA and Duncan. The findings reveal that the above factors are correlated and perception towards them differs over different category of age and occupation and also between male and female in accepting internet system. Findings also gives evidence that the factors "usefulness" and "advantages" are largely influences customers of 26-40 years ,business people and males, while "security" factor influences largely aged and retired persons along with female customers. Managerial implications and suggestion for future research incorporated

**Keywords:** usefulness, advantages, security, customers, internet system

## I. INTRODUCTION

Now a days, internet banking is increasingly becoming popular due to its merits and convenience. Internet banking or online banking is the term used for new age banking system and uses the internet as the delivery channel by which to conduct banking activities .It is the latest and cheapest technology introduced in the banking system. In the world of baking, the development in information technology has an enormous effect on development of more flexible payment methods and more user friendly banking services. The remarkable benefits of internet banking are savings in time and cost, no dependence on location, time of day, provision of more services, unlimited operational timings and quick response to complaints [1], [2].Further on line banking due to its growth transformed traditional banking practices [3].Private banks in India are the pioneers in implementing internet banking services, as internet application were easier for them to contact customers at any place and also at any time, due to the absence of established net work in the remote corners of the country.

Previous studies reveals that various factors which contribute customers acceptance of internet banking are

operation convenience , time factor, minimized transaction cost, security through digital signature , online bill payment, any time any where banking facility , access to previous data, facility for fund transfer payments for purchase of goods etc.

The most related determinants for adoption of on line banking are usefulness, easier use (advantages) and risk. The positive perception of customers towards the above factors gives significant positive effect on adoption of online banking system [4]. This study explores whether there is relationship exists between usefulness, advantages and security of internet banking and also verifies whether the above factor's influence over different category of customers of age and occupation differs towards acceptance of internet banking system and predict the impact on male and female customers of private banks in and around Chennai city. Finally it verifies which groups are largely influenced by these factors for their acceptance of internet banking system.

## II. OBJECTIVES OF THE STUDY

1.To find out whether there is differences in customers perception towards usefulness, advantages and security of internet banking between

- a. Different age groups
  - b. Different occupation groups
  - c. Male and females.
- 2 To explore whether there is correlation exists between usefulness advantages and security of internet banking

### III. METHODOLOGY

Both primary and secondary data were used for this survey. Secondary data were collected from published sources and through structured survey primary data collected. Customers of private banks in around Chennai city were taken as respondents. Using convenient sample method they were asked to respond the questionnaire in a likert –scale range from 1-5 1- strongly disagree and 5- strongly agree SPSS used for analyzing data. Totally 550 questionnaire were distributed by the researchers and collected back. Only 416 questionnaire were usable for analysis giving a response rate of about 75%

The questionnaire for “internet usefulness”, consists of 5 items, 5 items belonged to “advantages” and lastly 5 items for measuring “security” and items were adopted from [5].

Also there were questions relating to demographic factors .the reliability co efficient for ‘usefulness’ is 0.782 and for ‘advantages’ it is 0.802 and the reliability co efficient for ‘security’ is 0.762’. All are above the acceptance level of 0.700 [6] provides support to the items.

All the items were subjected to an assessment of content validity as per the procedure described by [7].A correlation matrix (item by item) of the data was calculated and that matrix was subjected to principle component analysis. A commonly used rule specifies that only variables with loadings greater than 0.40 on a factor should be considered “significant” and used in defining that factor. The factor loadings of all the items were above 0.40 with no major cross loadings and are taken for analysis.

### IV. PROFILE OF THE CUSTOMERS

Customers are grouped age wise occupation wise and they are also grouped gender wise with respect to their age. Below 25 years accounts for 86, 166 Numbers falls under 26-40 years age group, while 41-60 group age comes to 102 and lastly above 60 years comes to 62. Regarding occupation groups students are numbering 44 while business people accounts for 180 and salaried comes to 150 the remaining 42 are retired persons there were 357male customers and 59 female customers.

### V. REVIEW OF LITERATURE

In the present days competitive business environment, customers preferring fast services with the minimum financial implication. This attitude made monetary institutions to upgrade their activities and implemented

online banking services. As the customers acceptance of on line banking relates to their perception towards system, researchers focused their attention to the factors which are directly relates to the customers perception. The convenience of cash withdrawal and deposits offered by on- line banking system[ 8] customers convenience and flexibility at a lower cost than branch banking [9] are contributors for acceptance of this system. Additionally by logging in to banking web site through a user name and password a customer can avail the benefits of information of account balance check status, transfer funds, order drafts make request for usage of cheque books etc. [10],[1] and these facilities also gives positive influence on their perception towards adoption of internet banking. Customers are concerned about the security issues of internet banking. Phishing, phishing and other types of attacks have become well known and widely used by fraudsters to obtain information from customers which prohibit the use of internet banking [9] The internet security such as data encryption and digital signatures become more advanced in 1990 have reduced the possibility of internet security breaches.

Researcher [11] suggests that security and privacy issues need to be resolved for internet system. Prosperous, minimizing transaction time [8]and getting clearance for queries and doubts about transaction [10] are also important factors which increase customers acceptance of e banking. Additional advantages like bill payment funds transfer between accounts and cash management services for corporate [12] also factors stimulating the use of internet banking. Internet banking system. Offering services at a comparatively lower cost than existing mode of delivery [13] is also an important factor which contributes positive perception toward internet banking. The researchers [4] concludes that perceived usefulness, perceived ease of use consumer awareness and perceived risk are the important determinants of on line banking adoption and strong and positive effect on consumers to accept on line banking system.

The customers usage of ATM is strongly associated with demographic profiles [14], [15] and also directly related to psychographic profiles of customers [16]. As regards to performance private and foreign banks are providing advanced internet services, and size, experience financing pattern, and ownership of banks are important determinants affecting internet service [17]

There is significant relationship prevails between customer service quality, system quality, service product quality and customer satisfaction [18].

Researcher [19] concluded that perceived ease of use, perceived usefulness are the determinants of acceptance of internet system. Propensity to trust also a major factor in customers’ acceptance of internet system [20].

Opening an on line account is depends on perceived level of security [21] and the use of the system related to perceived usefulness trust and government support [22] Though the customers preferred internet system over branch banking, security problems lack trust and knowledge and ATM machine problems affects their usage [23]

From the above literature it is concluded that usefulness, advantages and security are the important factors closely related to customers perception towards internet banking

### VI. DATA ANALYSIS

Table 1:ANOVA for significant d inference between customer age groups

| Factors    | Groups         | Sum of Squares | df  | Mean Square | F     | Sig     |
|------------|----------------|----------------|-----|-------------|-------|---------|
| usefulness | Between Groups | 33.744         | 3   | 11.248      | 2.898 | 0.035*  |
|            | Within Groups  | 1599.016       | 412 | 3.881       |       |         |
|            | Total          | 1632.760       | 415 |             |       |         |
| advantage  | Between Groups | 87.472         | 3   | 29.157      | 7.774 | 0.000** |
|            | Within Groups  | 1545.287       | 412 | 3.751       |       |         |
|            | Total          | 1632.760       | 415 |             |       |         |
| Security   | Between Groups | 69.053         | 3   | 23.018      | 6.065 | 0.000** |
|            | Within Groups  | 1563.706       | 412 | 3.795       |       |         |
|            | Total          | 1632.760       | 415 |             |       |         |

Source: Primary Data, \* $p < 0.05$ , \*\* $p < 0.01$ .

$H_0$  :There is no significant difference between age group of customers with respect to their perception towards usefulness advantage and Security.

Table 1 shows that p value for all the three factors is less than significant level of 0.05 and hence hypothesis is rejected. It is concluded that there is significant difference between groups of age with respect to their perception towards usefulness advantage and Security with acceptance of internet banking. Duncan multiple range test results shown in Table 2 gives evidence that 26-40 years group of customers significantly differ from other age groups with respect to their perception towards usefulness. Further they are largely influenced by usefulness.

Table 2 Duncan multiple range test for age groups with usefulness advantages and security

| factor     | Age groups     | N   | Subset for alpha = 0.05 |         |
|------------|----------------|-----|-------------------------|---------|
|            |                |     | 2                       | 1       |
| usefulness | Above 60 years | 62  | 29.6172                 |         |
|            | Below 25       | 86  | 29.7583                 |         |
|            | 41-60          | 102 | 30.2549                 |         |
|            | 26-40          | 166 |                         | 31.8939 |
|            |                |     |                         |         |
| Advantages | Above 60       | 62  | 25.2109                 |         |
|            | 41-60          | 102 | 25.3917                 |         |
|            | Below 25       | 86  | 25.7451                 |         |

|          | years          |     |         |         |
|----------|----------------|-----|---------|---------|
|          | 26-40          | 166 |         | 26.8636 |
| Security | Below 25 years | 86  | 21.1066 |         |
|          | 26-40          | 166 |         | 21.8404 |
|          | 41-60          | 102 |         | 22.0427 |
|          |                |     |         |         |
|          | Above 60       | 62  |         | 22.0602 |

Source: Primary Data

Table 3ANOVA for significant difference between customer’s occupation groups

| Factors    | Groups         | Sum of Squares | df  | Mean Square | F     | Sig     |
|------------|----------------|----------------|-----|-------------|-------|---------|
| usefulness | Between Groups | 38.254         | 3   | 12.751      | 2.940 | 0.033*  |
|            | Within Groups  | 1786.967       | 412 | 4.337       |       |         |
|            | Total          | 1825.221       | 415 |             |       |         |
| advantage  | Between Groups | 53.749         | 3   | 17.916      | 4.167 | 0.006** |
|            | Within Groups  | 1771.472       | 412 | 4.300       |       |         |
|            | Total          | 1825.221       | 415 |             |       |         |
| Security   | Between Groups | 96.258         | 3   | 32.086      | 7.646 | 0.000** |
|            | Within Groups  | 1728.963       | 412 | 4.197       |       |         |
|            | Total          | 1825.221       | 415 |             |       |         |

Source Primary Data, \* $p < 0.05$ , \*\* $p < 0.01$

$H_0$  :There is no significant difference between occupation group of customers with respect to their perception towards usefulness advantages and Security

Regarding advantages 26-40 age group significantly differ with other age groups and they are largely influenced by this factor. Probably customers of 26-40 age group are comparatively more active in their works and racing with time. Since internet system helps them to act speedily, saving their time and also advantages for them to carry out their works, they prefer these factors. Regarding security below 25 years group of customers significantly differ from other age groups with respect to their perception towards security. Further above 60 years group are largely influenced by security of internet banking. Mostly age groups of above 60 years would have retired from service or active part in business. They are concerned about their hard earned money and more concerned for security.

Table 3 shows that p value for all the three factors is less than significant level of 0.05 and hence hypothesis rejected it is concluded that there is significant difference between groups of occupation with respect to their perception towards usefulness advantage and Security with acceptance of Internet syste

Table 4:Duncan multiple range test for occupation groups with usefulness advantages and security

| Factors    | occupation | N   | Subset for alpha = .05 |         |
|------------|------------|-----|------------------------|---------|
|            |            |     | 2                      | 1       |
| Usefulness | students   | 44  | 42.0750                |         |
|            | Retired    | 42  | 42.4453                |         |
|            | salaried   | 150 | 42.6765                |         |
|            | Business   | 180 |                        | 44.9545 |
| Advantages | retired    | 42  | 19.5588                |         |
|            | students   | 44  |                        | 21.4404 |
|            | salary     | 150 |                        | 21.5342 |
|            | business   | 180 |                        | 21.8837 |
| security   | students   | 44  | 29.2734                |         |
|            | business   | 180 | 29.3917                |         |
|            | salaried   | 150 | 30.0294                |         |
|            | retired    | 42  |                        | 31.4394 |

Source primary data

The Duncan multiple range test shown in Table 4 indicates that business persons differs from other occupation groups with respect to their perception towards usefulness on the internet system and they are largely influenced. Further usefulness gives comparatively smaller impact on students to adopt internet system. As regards to advantages, retired persons differs from others, higher mean of customers belonging to business groups indicates that they are largely influenced by this factor. Generally in our society business people are having higher transaction with the bank than others. As internet system provides them speedy and easier services for their business operations they prefer this factor largely. Regarding security retired persons are largely influenced.

Although security is an important factor for all groups, retired persons because of their comparatively reduced earning capacity are afraid of security and give highest priority

Table 5 t-test for significant difference between male and female with respect to usefulness advantages and security

| Factors    | Gender | Mean  | SD   | t-value | P value |
|------------|--------|-------|------|---------|---------|
| usefulness | Female | 25.59 | 2.26 | 0.163   | 0.000** |
|            | male   | 26.46 | 3.28 |         |         |
| Advantages | female | 21.42 | 2.01 | 0.391   | 0.000** |
|            | male   | 21.90 | 2.95 |         |         |
| Security   | female | 30.53 | 4.27 | 0.351   | 0.000** |
|            | Male   | 29,78 | 2.79 |         |         |

Source: Primary data, \*  $p < 0.05$  \*\* $p < 0.01$

$H_0$ : there is no significant difference between male and female

Table 5 reveals that p value is 0.000 and it is lesser than 0.01. Hence the hypothesis is rejected and predicted that the existence of difference between male and female with respect to their perception about usefulness advantages and security. Mean level of males with respect to usefulness and advantages are higher than females

indicates that male are receiving higher influence from these factors in accepting internet system. The higher mean of females with respect to security indicates that females are more influenced in accepting internet system.

Table 6 shows correlation matrix of the proposed factors. It is observed that all the factors are positively correlated with each other. The correlation ranges from 59.9% to 79.2%

Table 6: Correlation of usefulness advantages and security factors

| Factors       | 1       | 2       | 3 | Mean  | SD   |
|---------------|---------|---------|---|-------|------|
| 1. Usefulness | 1       |         |   | 21.72 | 1.98 |
| 2. Advantages | 0.735** | 1       |   | 30.17 | 2.68 |
| 3. Security   | 0.599** | 0.792** | 1 | 21.45 | 2.09 |

Source primary data

## VII. CONCLUSION

Internet system will be effective and successful for the banks only if they are committed to this system and understanding the needs of customers of all categories. The main findings of this study are the factors “usefulness” “advantages” and “security” concerned with internet system are correlated and the perception towards the above factors differs over different category of customers of age and occupation. and also differs between male and female in accepting internet system. Findings also gives evidence that the factors “usefulness” and “advantages” are largely influences customers of 26-40 years, business people and males, while “security” factor influences largely aged and retired persons along with female customers.

## VIII. RECOMMENDATIONS AND FUTURE RESEARCH

At the practical level this research provides some recommendation for the banking authorizes and provides information about different category of customer's perception towards salient factors and their influence in acceptance of internet system. Since good relationship with customers gives positive results, bank managers, need to interact with customers and demonstrate them that bank is interested in them and their hardships if any, will be solved immediately, besides enforcing the e banking round the clock. Further customers need to be educated about safety measures namely maintaining secrecy of their accounts and frequent changing of pin numbers and passwords. Banks through systematic action can encourage customers to use cost effective delivery channel. Future research can be tried with other factors also in other places for getting more detailed results.

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